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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,268	10/13/2000	J. Bruce Mixer JR.	BLD9-2000-0058US1	9896

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EXAMINER

GROSS, KENNETH A

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 08/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/688,268

Applicant(s)

MIXER, J. BRUCE

Examiner

Kenneth A Gross

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 20=28, and 33-37 is/are rejected.
- 7) ☒ Claim(s) 16-19 and 29-32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 3-11 has been renumbered 4-12. (Note: The specification contains two "Claim 3"'s, and the second "Claim 3" has been renumbered).

Claim Rejections - 35 USC § 103

2. Claims 1-7, 9-13, 15, 20-23, 26, 28, 33-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bluethman et al. (U.S. Patent Number 4,095,277) in view of Kopsaftis (U.S. Patent Number 5,659,801).

In regard to Claim 1, Bluethman teaches: (a) embedding commands to a printer in a print job file (Column 4, lines 63-67 and Column 5, lines 1-9); (b) inputting job to printer (Column 5, lines 10-11); (c) recognizing that the print job includes the update file (Column 9, lines 24-32). Bluethman does not teach that the print job is embedded with a microcode update file and that the microcode update file is written to a memory area in the printer. Kopsafkis, however, does teach updating the microcode of a printer by sending the microcode to a printer (Column 15, lines 29-38) and writing the microcode to memory (Figure 3, item 236). Therefore it would have

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been obvious to one of ordinary skill in the art at the time of the invention to embed commands for controlling a printer in a print job file, inputting the job to the printer, and recognizing that the print job contains commands for controlling the printer as taught by Bluethman, where the update commands are microcode updates to be written to the printer memory, as taught by Kopsaftis, since this allows easy updating of printer microcode without need for the printer to use additional software or hardware. Claims 20 and 33 correspond directly with Claim 1 and are rejected for the same reasons as Claim 1.

In regard to Claim 2, Kopsafkis teaches a file header indicating in a bit pattern the presence of a microcode (Figure 2). Claim 21 corresponds directly with Claim 2, and is rejected for the same reasons as Claim 2.

In regard to Claim 3, Kopsafkis teaches that the bit pattern is in the file header (Figure 2).

In regard to Claim 4, Kopsafkis teaches writing the microcode to a volatile memory area (Column 5, lines 33-35).

In regard to Claim 5, Kopsafkis teaches writing the microcode to a non-volatile memory area (Figure 3, item 236).

In regard to Claim 6, Kopsafkis teaches that the microcode is an executable program (Column 1, lines 16-17). Claim 34 corresponds directly with Claim 6 and is rejected for the same reasons as Claim 6.

In regard to Claim 7, Kopsafkis teaches returning control to the executable program (Column 10, lines 37-40). Claim 35 corresponds directly with Claim 7 and is rejected for the same reasons as Claim 7.

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In regard to Claim 9, the examiner takes official notice that an execution queue is a well-known method of delaying the execution of a program while another program is currently being run, and transferring execution to a program after another program is complete.

In regard to Claim 10, the examiner takes official notice that loading a program into memory is an obvious step in executing the program.

In regard to Claim 11, Bluethman teaches that the print file contains commands module as well as a module for data to be printed, which gets downloaded to the printer, and is processed (Column 9, lines 7-14). Claims 26 and 37 correspond directly with Claim 11 and are rejected for the same reasons as Claim 11.

In regard to Claim 12, the examiner takes official notice that a pointer is a well-known method for a program to reference objects that it might need during execution.

In regard to Claim 13, Kopsafkis teaches a microcode module with a header (Figure 2, "CMD PKT" section).

In regard to Claim 15, Kopsafkis teaches a bit for specifying the destination of the module (Column 5, lines 15-17). Claim 28 corresponds directly with Claim 15 and is rejected for the same reasons as Claim 15.

In regard to Claim 22, Kopsafkis teaches a module header and module body, where the body contains the microcode data (Figure 2).

In regard to Claim 23, Kopsafkis teaches addressing in the header a destination printer (Column 5, lines 7-10).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bluethman et al. (U.S. Patent Number 4,095,277) in view of Kopsaftis (U.S. Patent Number 5,659,801) and further in view of Gauronski et al. (U.S. Patent Number 5,206,735).

In regard to Claim 8, Bluethman and Kopsafkis teach the method of Claim 7, but do not teach resuming execution of a previously running program after transferring execution to the executable program. Gauronski, however, does teach resuming execution of a previously running print job after a print job is interrupted (Column 7, lines 38-46). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 7, as taught by Bluethman and Kopsafkis, where a previously running program resumes execution after transferring execution to the executable program, since this allows uninterrupted service from the printer, and no loss of print jobs. Claims 25 and 36 correspond directly with Claim 8 and are rejected for the same reasons as Claim 8.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bluethman et al. (U.S. Patent Number 4,095,277) in view of Kopsaftis (U.S. Patent Number 5,659,801) and further in view of Williams, Jr. (U.S. Patent Number 4,868,866).

In regard to Claim 14, Bluethman and Kopsafkis teach the method of Claim 13, but do not teach that the module header comprises a bit pattern that directs a processor to uncompress a module. Williams, however, does disclose a bit pattern in a file header, which instructs a processor to decompress file data (Column 15, lines 53-56). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 14, as taught by Bluethman and Kopsafkis, where a bit pattern in a file header instructs a processor to decompress file data, as taught by Williams, since this allows a file to be

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compressed and decompressed without separate instructions or machinery. Claim 27 corresponds directly with Claim 14 and is rejected for the same reasons as Claim 14.

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bluethman et al. (U.S. Patent Number 4,095,277) in view of Kopsaftis (U.S. Patent Number 5,659,801) and further in view of Misunas et al. (U.S. Patent Number 4,174,536).

In regard to Claim 24, Bluethman and Kopsaftis teach the method of Claim 20, but do not teach that the print job file header comprises a bit pattern indicating that a microcode is to be executed by said processor. Misunas, however, does teach interpreting a packet header, and from the header, receiving instructions to execute the packet (Column 12, lines 27-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 20, as taught by Bluethman and Kopsaftis, where the print job file header comprises a bit pattern indicating that a microcode is to be executed by said processor, as taught by Misunas, since this allows a file to be executed without separate instructions or machinery.

Allowable Subject Matter

6. Claims 16-19 and 29-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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Jia et al. (U.S. Patent Number 5,991,402)

Hamzy (U.S. Patent Number 6,604,111)

Davis et al. (U.S. Patent Number 5,633,932)

Jeyachandran et al. (U.S. Patent Number 6,567,176)

Hube (U.S. Patent Number 5,436,730)

Parry (U.S. Publication Number 2003/0051046)

Kalwitz (U.S. Patent Number 5,815,722)

Lin et al. (U.S. Patent Number 6,523,083)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542.

The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG



TUAN Q. DAM
PRIMARY EXAMINER